

ABSTRACT OF THE DISCLSOURE

A wave energy converter (WEC), for use in a body of water of depth D_w , includes a tubular structure and a piston within the tubular structure where the relative motion between the piston and the tubular structure is used to generate electric power. The length (L) of the tubular structure may be selected to have a predetermined value based on the fact that: (a) the efficiency of the power generated by WEC increases as the length " L " of the tubular structure increases from a minimal value until L reaches an optimal value; and (b) the efficiency decreases as L is increased beyond the optimal value due to the increased mass of the water that the tubular structure and the piston have to move.